1565 MacArthur Blvd. Cost Mesa, CA 92626 714.431.4100 Fax 714.825.0685



July 13, 2005

Mr. Roger Baker City Planner CITY OF BURBANK 275 East Olive Avenue Burbank, California 91502

Clayton Project No. 80-98191.00

Subject: Status Report of Vapor Extraction System Operation - Lockheed-Martin

B-1 Site – August 19, 2004 through May 24, 2005

Dear Mr. Baker:

Clayton Group Services, Inc. (Clayton) has prepared the following status report for the Vapor Extraction System (VES) operation at Lockheed-Martin B-1 Site for the period between August 19, 2004 through May 24, 2005. It includes the following items:

- Background
- Clayton Field Activities
- Results of Laboratory Analysis
- Health Risk Assessment Calculations
- Conclusions

BACKGROUND

Alton Geoscience conducted a "Phase I" and "Phase II" of VES effluent sampling and health risk assessment for the Lockheed-Martin B-1 facility. Phase I consisted of twelve weekly health risk reports based on samples collected between September 2, 1997 and February 9, 1998. Phase II included twelve bi-weekly health risk assessments based on samples collected between February 16, 1998 and September 9, 1998. Phase III consisted of monthly sampling between October and December 1998.

Phase IV of the VES effluent sampling consists of VES effluent sample acquisition, laboratory analyses, and health risk assessments to be performed once per quarter for the



Page 2 of 5 Clayton Project No. 80-98191.00

remainder of the project. The first and second quarterly health risk assessments were provided by Alton in reports dated January 18, 1999 and May 24, 1999, respectively.

Clayton subsequently has conducted quarterly sampling of the units and has routinely reported the results. These reports were issued as follows:

- November 23, 1999, which addressed the temporary shutdown of the system on October 14, 1999 for rebound testing;
- March 13, 2000, for the period following restart of the system;
- May 16, 2000 for the period through March 2000;
- March, July 12, 2000 for the period through June 2000;
- November 17, 2000, for the period through September 2000;
- February 22, 2001, for the period through January 2001;
- May 31, 2001, for the period through April 2001;
- August 21, 2001, for the period through August 5, 2001;
- November 12, 2001 for the period through October 19, 2001;
- March 29, 2002 for the period through January 28, 2002;
- June 6, 2002 for the period through April 29, 2002;
- August 23, 2002 for the period through July 26, 2002;
- January 8, 2003 for the period through October 30, 2002;
- March 4, 2003 for the period through February 3, 2003;
- January 7, 2004 for the period through December 9, 2003 (2 reports issued); and
- September 3, 2004 for the period through August 18, 2004.



Page 3 of 5 Clayton Project No. 80-98191.00

CLAYTON FIELD ACTIVITIES

On May 24, 2005 personnel from Clayton met with Earth Tech personnel to conduct sampling of air emissions at the Lockheed-Martin B-1 Site VES. Clayton and Earth Tech personnel each collected an exhaust sample using an evacuated Summa canister, connected via a disposable Teflon® tube to the VES unit's sampling port. During this time, the VES was not drawing from the extraction wells. The blower unit was operating only to perform regeneration of one of the carbon adsorber units.

During the sampling period, the exhaust flow rate was 2200 standard cubic feet per minute (scfm). The two stack analyzers monitoring volatile organic compound (VOC) concentration showed good correlation with readings of 0.42 and 0.39 parts per million (ppmv), which was significantly higher than the total of the VOCs reported analytically. The VOC emission rate readings were within acceptable operating conditions for the VES. The 15-minute average VOC emission rate indicated at the time was 0.78 pounds per day (lbs/day), while the 24-hour average value was 0.65 lbs/day. These values were also above the calculated value of 0.052 lb/day, based on the analytical data.

The sample collected by Clayton was delivered to Severn Trent Laboratory in Santa Ana, California under chain of custody control for analysis by gas-chromatograph/mass spectrometry (GS/MS) in accordance with EPA Method TO-14A.

RESULTS OF LABORATORY ANALYSES

The results from the TO-14A analysis of the sample taken on May 24, 2005 indicated that three (3) compounds were present in concentrations above detection limits. Following are a list of these compounds and the concentrations indicated by the analysis:

Compound	Concentration (ppmv) ¹
Acetone	0.014
Trichloroethene (TCE)	0.026
Tetrachloroethene (Perchloroethylene or PCE))	0.013

1 ppmv = parts per million by volume

These results reflect a decrease in the total VOC concentration as well as a decrease in the number of constituents detected. However, the results reported a concentration for acetone that was not reported in the previous sampling event. Overall the total VOC concentration range remains at low levels relative to the historical trend.



Page 4 of 5 Clayton Project No. 80-98191.00

Using the analytical data, an overall VOC emission rate of 0.052 lb/day was calculated. This value is below the 24-hour average VOC reading provided by the organic vapor monitoring system. In addition, this value is also below the calculated VOC emission levels designated by the Conditional Use Permit (CUP) limit of 9.8 lb/day. These results, along with the previous calculated total VOC emissions for the unit, were plotted on Figure 1. Vinyl chloride was not detected in the sample taken. Therefore, its CUP limit of 0.14 pounds per day was not exceeded.

HEALTH RISK ASSESSMENT CALCULATIONS

In accordance with the CUP, the stack concentrations of each constituent and the exhaust flow rates were used to calculate the excess cancer risk resulting from operation of the VES. The first risk calculation was to determine the risk if the unit was operated for a lifetime period of 70 years, evaluating the risk to both workers and local residents for those chemicals specified in SCAQMD Rule 1401, as adopted at the time the unit was permitted. The second risk calculation was to determine the risk to both workers and local residents for the life of the project (the 8.5 year operating period), for all detected chemicals for which carcinogenic risk factors are available.

The resulting cancer risk calculations for both conditions indicated an acceptable Maximum Individual Cancer Risk (MICR) significantly less than one in one million. The results from these calculations, along with the MICR results from previous calculations for the unit, are presented on Figures 2 and 3, for 70 year and 8.5 year calculations respectively.

CONCLUSIONS

Based on the results of the information gathered and samples taken on May 24, 2005, the following conclusions can be made:

- Because this sampling was conducted during a carbon adsorber regeneration event, no interpretation regarding the status of vapor extraction from the soils should be made.
- All measured emissions are within the permit conditions. Since vinyl chloride
 was not detected, its CUP limit of 0.14 pounds per day was not exceeded. Excess
 cancer risks (MICR) were less than one in one million for workers and local
 residents, using both 70-year lifetime and 8.5-year operating period risk
 calculations.



Page 5 of 5 Clayton Project No. 80-98191.00

If you have any questions or require additional information regarding this status report, please contact me at (714) 431-4157.

Sincerely,

Martin L. McClintock, P.E. No. 5025

Martin Z. Mc Clintock

Project Engineer

Environmental Services

Attachments: Figure 1 - Daily VOC Emissions

Figure 2 - Human Health Risk (70 Year Lifetime)

Figure 3 - Human Health Risk (8.5 Year Operating Period)

Laboratory Report

cc: Ms. Stacey Ebiner, South Coast Air Quality Management District George Illes, South Coast Air Quality Management District

FIGURE 1 - DAILY VOC EMISSIONS LOCKHEED B-1 VES Independent Monitoring Data

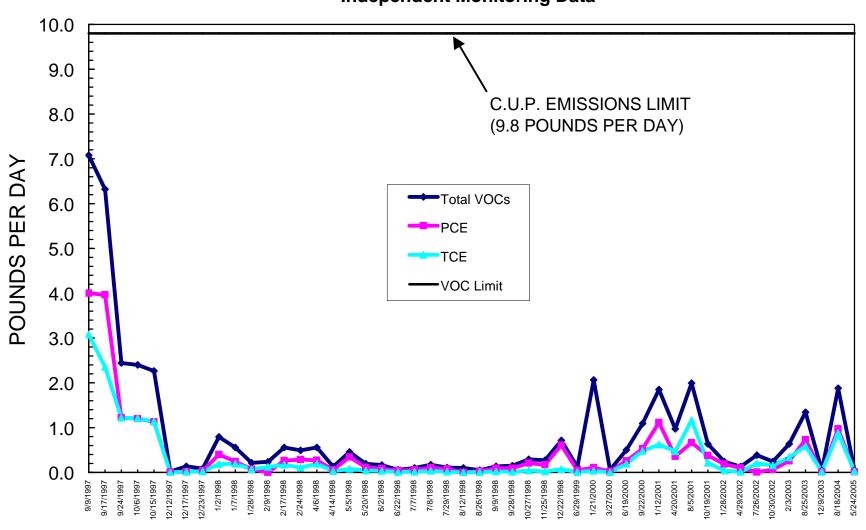


FIGURE 1

FIGURE 2 - HUMAN HEALTH RISK LOCKHEED B-1 VES SCAQMD RULE 1401 CHEMICALS HYPOTHETICAL 70 YEAR LIFETIME

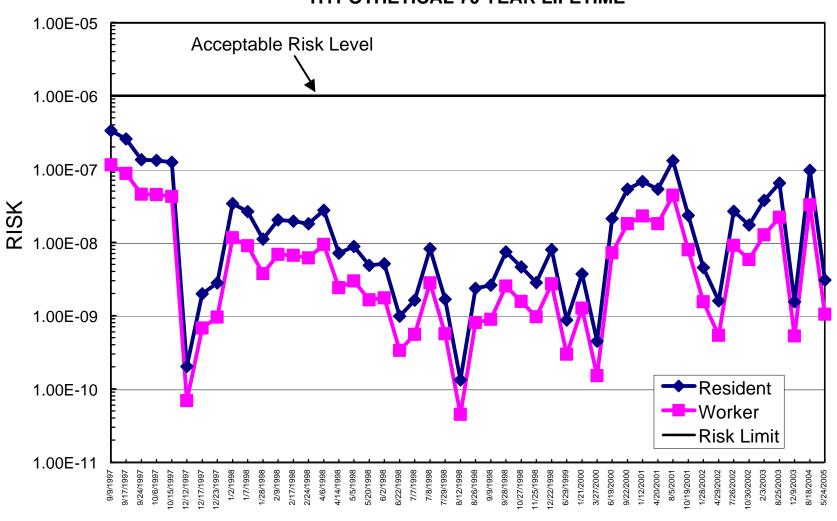
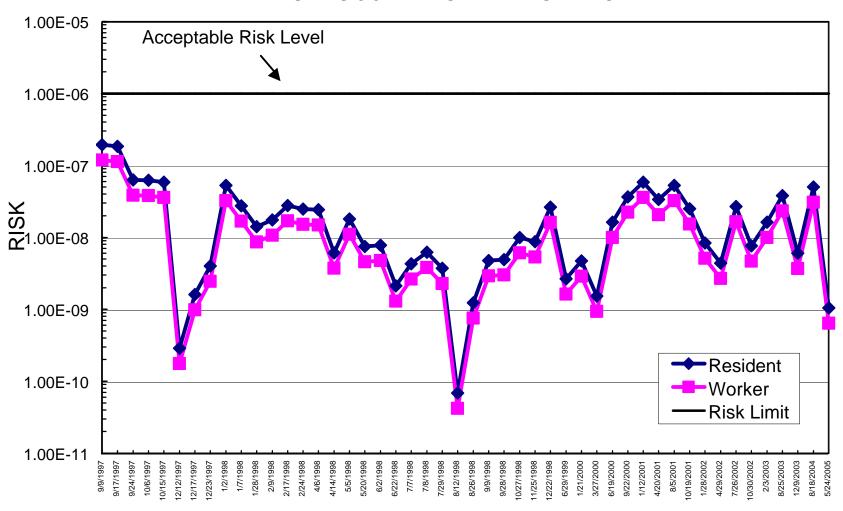


FIGURE 3 - HUMAN HEALTH RISK LOCKHEED B-1 VES DURING 8.5 YEAR OPERATING PERIOD





STL Los Angeles 1721 South Grand Avenue Santa Ana, CA 92705

Tel: 714 258 8610 Fax: 714 258 0921 www.stl-inc.com

June 3, 2005

STL LOT NUMBER: E5E270224

Gustavo Valdivia Clayton Group Services Inc 1565 MacArthur Blvd Costa Mesa, CA 92704

Dear Mr. Valdivia,

This report contains the analytical results for the sample received under chain of custody by STL Los Angeles on May 25, 2005. This sample is associated with your City of Burbank project.

STL Los Angeles certifies that the test results provided in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of the report. NELAP Certification Number for STL Los Angeles is E87652.

Any matrix related anomaly is footnoted within the report. Historical control limits for the LCS are used to define the estimate of uncertainty for a method. All applicable quality control procedures met method-specified acceptance criteria.

Preliminary results were sent via facsimile on June 3, 2005.

This report shall not be reproduced except in full, without the written approval of the laboratory.

This report contains 000017 pages.

1



E5E270224

Learning Tayliya Bayliya a manana a ma

If you have any questions, please feel free to call me at (714) 258-8610.

2

Sincerely,

Marisol Tabirara Project Manager

Marval Tolurare

cc: Project File



Clayton co

1565 Mac Arthur Blvd. Costa Mesa, CA 92626 Tel (714) 431-4100 Fax (714) 825-0685

CUSTODY RECORD

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Hardcopy 💢	Electronic
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PROJECT NUMBER: 90 98 71.00	PROJECT NAME: (1) TY	y of Bizzank	1/4	
END RESULTS AND INVOICE TO:	LAB INFORMATION	:	ANAL	ANALYSIS REQUESTED
roject Manager: (20 STRUO VALDIVIA	Name:	STL		
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ax:	Phone/Fax:			
Sample	Collection	Jo#	_	
Number Location	Time Date	Matrix Preserv. Cont.		/ / Remarks
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,	E	TOTAL NO. OF CONTAINERS (THUS SHIPMENT)	TOTAL NO. OF SAMPLES (THIS SHIPMENT)	
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3

Date/Time: 5-25-05

Received at Lab by

U Other (explain)

Gold = Project File

Pink = Client

Yellow = Laboratory

White = Project Manager

Sample Condition Upon Receipt:

Distribution:

Method of Shipmen

CUSTODY

1 Acceptable



CANISTER FIELD DATA RECORD

CLIENT: CLANTON CANISTER SERIAL #: 9207 (DATE CLEANED: 4-28-09 CLIENT SAMPLE #: SITE LOCATION:	5 C			of comp. :	hrs	
READING	TIME	Vac. (Or PR	inches Hg) ESS. (psig)	DATE		INITIALS
INITIAL VACUUM CHECK		30	າ້	5/23/0)5	(X)
INITIAL FIELD VACUUM						
FINAL FIELD READING						
LABORATORY CANISTER PRESSURIZATION						
INITIAL VACUUM (PSIA)		12-	82	5-28	-or	
FINAL PRESSURE (PSIA)		23.6		5-28	65	<i>▶</i>
Pressurization Gas:						
COMMENTS:		····		COMPOSITE TIME (HOURS)	F	FLOW RATE RANGE (ml/min)
				15 Min.		316 – 333
	***************************************			30 Min.		158 – 166.7
				2		79.2 - 83.3 39.6 - 41.7
		·		4		19.8 – 41.7 19.8 – 20.8
	···		······	6		13.2 – 13.9
				8		9.9 – 10.4
				10	···	7.92 – 8.3
				12 24		6.6 – 6.9

N:\COI\DOCS\CANISTER FIELD DATA RECORD(012103).doc



Analytical Report

ANALYTICAL REPORT

PROJECT NO. 8098191.00

City of Burbank

Lot #: E5E270224

Gustavo Valdivia

Clayton Group Services Inc

SEVERN TRENT LABORATORIES, INC.

Marisol Tabirara Project Manager

June 3, 2005

EXECUTIVE SUMMARY - Detection Highlights

E5E270224

PARAMETER B-1-VES-52405 05/24/05 10:40 00	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
Acetone	14		ppb (v/v)	EPA-21 TO-14A
Trichloroethene Tetrachloroethene	26 13		ppb(v/v)	EPA-21 TO-14A EPA-21 TO-14A

ANALYTICAL METHODS SUMMARY

E5E270224

PARAMETER ANALYTICAL METHOD

Volatile Organics by TO-14A EPA-21 TO-14A

References:

"Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", Second Edition, EPA/625/R-96/010b, January 1999

SAMPLE SUMMARY

E5E270224

<u>WO #</u>	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
HCGXK	001	B-1-VES-52405	05/24/05	10:40

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Clayton Group Services Inc

Client Sample ID: B-1-VES-52405

GC/MS Volatiles

Lot-Sample #...: E5E270224-001 Work Order #...: HCGXK1AC Matrix...... AE

 Date Sampled...:
 05/24/05
 10:40
 Date Received...
 05/25/05

 Prep Date.....:
 05/31/05
 Analysis Date...
 05/31/05

 Prep Batch #...:
 5154233
 Analysis Time...
 19:17

Dilution Factor: 1

Analyst ID....: 117751 Instrument ID..: MSB

Method..... EPA-21 TO-14A

		REPORTING	
PARAMETER	RESULT	LIMIT	UNITS
Dichlorodifluoromethane	ND	2.0	ppb (v/v)
Chloromethane	ND	4.0	ppb(v/v)
1,2-Dichloro-	ND	2.0	ppb(v/v)
1,1,2,2-tetrafluoroethane			***
Vinyl chloride	ND	2.0	ppb (v/v)
Bromomethane	ND	2.0	ppb (v/v)
Chloroethane	ND	4.0	ppb(v/v)
Trichlorofluoromethane	ND	2.0	ppb(v/v)
1,1-Dichloroethene	ND	2.0	ppb(v/v)
Carbon disulfide	ND	10	ppb(v/v)
1,1,2-Trichloro-	ND	2.0	ppb(v/v)
1,2,2-trifluoroethane			
Acetone	14	10	ppb (v/v)
Methylene chloride	ND	2.0	ppb(v/v)
trans-1,2-Dichloroethene	ND	2.0	ppb(v/v)
1,1-Dichloroethane	ND	2.0	ppb (v/v)
Vinyl acetate	ND	10	ppb (v/v)
cis-1,2-Dichloroethene	ND	2.0	ppb(v/v)
2-Butanone (MEK)	ND	10	ppb(v/v)
Chloroform	ND	2.0	ppb(v/v)
1,1,1-Trichloroethane	ND	2.0	ppb(v/v)
Carbon tetrachloride	ND	2.0	ppb (v/v)
Benzene	ND	2.0	ppb (v/v)
1,2-Dichloroethane	ND	2.0	ppb(v/v)
Trichloroethene	26	2.0	ppb (v/v)
1,2-Dichloropropane	ND	2.0	ppb(v/v)
Bromodichloromethane	ND	2.0	ppb(v/v)
cis-1,3-Dichloropropene	ND	2.0	ppb(v/v)
4-Methyl-2-pentanone (MIBK)	ND	10	ppb(v/v)
Toluene	ND	2.0	ppb(v/v)
trans-1,3-Dichloropropene	ND	2.0	ppb(v/v)
1,1,2-Trichloroethane	ND	2.0	ppb(v/v)
Tetrachloroethene	13	2.0	ppb(v/v)
2-Hexanone	ND	10	ppb(v/v)
Dibromochloromethane	ND	2.0	ppb(v/v)
1,2-Dibromoethane (EDB)	ND	2.0	ppb(v/v)

(Continued on next page)

Clayton Group Services Inc

Client Sample ID: B-1-VES-52405

GC/MS Volatiles

Lot-Sample #...: E5E270224-001 Work Order #...: HCGXK1AC Matrix...... AE

		REPORTING	
PARAMETER	RESULT	LIMIT	UNITS
Chlorobenzene	ND	2.0	ppb(v/v)
Ethylbenzene	ND	2.0	ppb(v/v)
Xylenes (total)	ND	2.0	ppb(v/v)
Styrene	ND	2.0	ppb(v/v)
Bromoform	ND	2.0	ppb(v/v)
1,1,2,2-Tetrachloroethane	ND	2.0	ppb(v/v)
Benzyl chloride	ND	10	ppb(v/v)
4-Ethyltoluene	ND	2.0	ppb(v/v)
1,3,5-Trimethylbenzene	ND	2.0	ppb(v/v)
1,2,4-Trimethylbenzene	ND	2.0	ppb(v/v)
1,3-Dichlorobenzene	ND	2.0	ppb (v/v)
1,4-Dichlorobenzene	ND	2.0	ppb(v/v)
1,2-Dichlorobenzene	ND	2.0	ppb(v/v)
1,2,4-Trichloro-	ND	5.0	ppb(v/v)
benzene			
Hexachlorobutadiene	ND	4.0	ppb (v/v)

SEVERN STL

QA/QC

QC DATA ASSOCIATION SUMMARY

E5E270224

Sample Preparation and Analysis Control Numbers

13

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	AE	EPA-21 TO-14A		5154233	

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E5E270224 Work Order #...: HCVC71AA Matrix...... AIR

MB Lot-Sample #: M5F030000-233

Prep Date....: 05/31/05 Analysis Time..: 18:11
Analysis Date..: 05/31/05 Prep Batch #...: 5154233 Instrument ID..: MSB

Analysis Date..: 05/31/05 Prep Batch #...: 5154233 Dilution Factor: 1

Analyst TD • 11775

Analyst ID: II//5

		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	METHOD
Dichlorodifluoromethane	ND	2.0	ppb (v/v)	EPA-21 TO-14A
Chloromethane	ND	4.0	ppb (v/v)	EPA-21 TO-14A
1,2-Dichloro-	ND	2.0	ppb(v/v)	EPA-21 TO-14A
1,1,2,2-tetrafluoroethane				
Vinyl chloride	ND	2.0	ppb(v/v)	EPA-21 TO-14A
Bromomethane	ND	2.0	ppb(v/v)	EPA-21 TO-14A
Chloroethane	ND	4.0	ppb(v/v)	EPA-21 TO-14A
Trichlorofluoromethane	ND	2.0	ppb(v/v)	EPA-21 TO-14A
1,1-Dichloroethene	ND	2.0	ppb(v/v)	EPA-21 TO-14A
Carbon disulfide	ND	10	ppb(v/v)	EPA-21 TO-14A
1,1,2-Trichloro-	ND	2.0	ppb(v/v)	EPA-21 TO-14A
1,2,2-trifluoroethane				
Acetone	ND	10	ppb(v/v)	EPA-21 TO-14A
Methylene chloride	ND	2.0	ppb(v/v)	EPA-21 TO-14A
trans-1,2-Dichloroethene	ND	2.0	ppb(v/v)	EPA-21 TO-14A
1,1-Dichloroethane	ND	2.0	ppb(v/v)	EPA-21 TO-14A
Vinyl acetate	ND	10	ppb(v/v)	EPA-21 TO-14A
cis-1,2-Dichloroethene	ND	2.0	ppb(v/v)	EPA-21 TO-14A
2-Butanone (MEK)	ND	10	ppb(v/v)	EPA-21 TO-14A
Chloroform	ND	2.0	ppb(v/v)	EPA-21 TO-14A
1,1,1-Trichloroethane	ND	2.0	ppb(v/v)	EPA-21 TO-14A
Carbon tetrachloride	ND	2.0	ppb(v/v)	EPA-21 TO-14A
Benzene	ND	2.0	ppb(v/v)	EPA-21 TO-14A
1,2-Dichloroethane	ND	2.0	ppb(v/v)	EPA-21 TO-14A
Trichloroethene	ND	2.0	ppb(v/v)	EPA-21 TO-14A
1,2-Dichloropropane	ND	2.0	ppb(v/v)	EPA-21 TO-14A
Bromodichloromethane	ND	2.0	ppb(v/v)	EPA-21 TO-14A
cis-1,3-Dichloropropene	ND	2.0	ppb(v/v)	EPA-21 TO-14A
4-Methyl-2-pentanone	ND	10	ppb(v/v)	EPA-21 TO-14A
(MIBK)	•			
Toluene	ND	2.0	ppb(v/v)	EPA-21 TO-14A
trans-1,3-Dichloropropene	ND	2.0	ppb(v/v)	EPA-21 TO-14A
1,1,2-Trichloroethane	ND	2.0	ppb(v/v)	EPA-21 TO-14A
Tetrachloroethene	ND	2.0	ppb(v/v)	EPA-21 TO-14A
2-Hexanone	ND	10	ppb(v/v)	EPA-21 TO-14A
Dibromochloromethane	ND	2.0	ppb(v/v)	EPA-21 TO-14A
1,2-Dibromoethane (EDB)	ND	2.0	ppb(v/v)	EPA-21 TO-14A
Chlorobenzene	ND	2.0	ppb(v/v)	EPA-21 TO-14A
Ethylbenzene	ND	2.0	ppb(v/v)	EPA-21 TO-14A
Xylenes (total)	ND	2.0	ppb(v/v)	EPA-21 TO-14A
Tal manage (a comm)	****			

(Continued on next page)

14

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E5E270224 Work Order #...: HCVC71AA Matrix...... AIR

		REPORTING			
PARAMETER	RESULT	LIMIT	UNITS	METHOD	
Styrene	ND	2.0	ppb(v/v)	EPA-21 TO-14A	
Bromoform	ND	2.0	ppb(v/v)	EPA-21 TO-14A	
1,1,2,2-Tetrachloroethane	ND	2.0	ppb(v/v)	EPA-21 TO-14A	
Benzyl chloride	ND	10	ppb(v/v)	EPA-21 TO-14A	
4-Ethyltoluene	ND	2.0	ppb(v/v)	EPA-21 TO-14A	
1,3,5-Trimethylbenzene	ND	2.0	ppb(v/v)	EPA-21 TO-14A	
1,2,4-Trimethylbenzene	ND	2.0	ppb(v/v)	EPA-21 TO-14A	
1,3-Dichlorobenzene	ND	2.0	ppb(v/v)	EPA-21 TO-14A	
1,4-Dichlorobenzene	ND	2.0	ppb(v/v)	EPA-21 TO-14A	
1,2-Dichlorobenzene	ND	2.0	ppb(v/v)	EPA-21 TO-14A	
1,2,4-Trichloro-	ND	5.0	ppb(v/v)	EPA-21 TO-14A	
benzene					
Hexachlorobutadiene	ND	4.0	ppb(v/v)	EPA-21 TO-14A	
NOTE(S):					

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: E5E270224 Work Order #...: HCVC71AC-LCS Matrix...... AIR

LCS Lot-Sample#: M5F030000-233 HCVC71AD-LCSD

Prep Date....: 05/31/05
Prep Batch #...: 5154233
Dilution Factor: 1
Analysis Date..: 05/31/05
Analysis Time..: 16:26
Instrument ID..: MSB

Analyst ID....: 117751

	PERCENT	RECOVERY	RPD	RPD	
PARAMETER	RECOVERY	LIMITS RPD	LIMITS	METHOD	
1,1-Dichloroethene	99	(70 - 125)		EPA-21 TO-14A	
	101	(70 - 125) 1.8	(0-20)	EPA-21 TO-14A	
Methylene chloride	97	(75 - 120)		EPA-21 TO-14A	
	96	(75 - 120) 0.84	(0-20)	EPA-21 TO-14A	
Trichloroethene	102	(70 - 125)		EPA-21 TO-14A	
	102	(70 - 125) 0.45	(0-20)	EPA-21 TO-14A	
Toluene	103	(75 - 125)		EPA-21 TO-14A	
	102	(75 - 125) 0.56	(0-20)	EPA-21 TO-14A	
1,1,2,2-Tetrachloroethane	108	(65 - 130)		EPA-21 TO-14A	
	110	(65 - 130) 1.8	(0-20)	EPA-21 TO-14A	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: E5E270224 Work Order #...: HCVC71AC-LCS Matrix...... AIR

LCS Lot-Sample#: M5F030000-233 HCVC71AD-LCSD

Prep Date....: 05/31/05
Prep Batch #...: 5154233
Dilution Factor: 1
Analysis Date..: 05/31/05
Analysis Time..: 16:26
Instrument ID..: MSB

Analyst ID....: 117751

	SPIKE	MEASURED)	PERCENT		
PARAMETER	AMOUNT	AMOUNT	UNITS	RECOVERY	RPD	METHOD
1,1-Dichloroethene	50.0	49.5	ppb (v/v)	99		EPA-21 TO-14A
	50.0	50.4	ppb (v/v)	101	1.8	EPA-21 TO-14A
Methylene chloride	50.0	48.6	ppb (v/v)	97		EPA-21 TO-14A
	50.0	48.2	ppb (v/v)	96	0.84	EPA-21 TO-14A
Trichloroethene	50.0	51.0	ppb (v/v)	102		EPA-21 TO-14A
	50.0	50.8	ppb (v/v)	102	0.45	EPA-21 TO-14A
Toluene	50.0	51.4	ppb (v/v)	103		EPA-21 TO-14A
	50.0	51.2	ppb (v/v)	102	0.56	EPA-21 TO-14A
1,1,2,2-Tetrachloroethane	50.0	54.0	ppb (v/v)	108		EPA-21 TO-14A
	50.0	55.0	ppb (v/v)	110	1.8	EPA-21 TO-14A

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters